EXHIBIT B

UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK

In re Google Digital Advertising Antitrust Litig.	Civil Action No. 21-MD-3010 (PKC)

[PROPOSED] ORDER REGARDING DISCOVERY PROCEDURE

WHEREAS, Rule 26(f) of the Federal Rules of Civil Procedure states that the parties must develop a proposed discovery plan that states the parties' views and proposals on, among other things, "any issues about disclosure, discovery, or preservation of electronically stored information, including the form or forms in which it should be produced," Fed. R. Civ. P. 26(f)(3)(C);

WHEREAS, the parties mutually seek to reduce the time, expense, and other burdens of discovery of certain electronically stored information ("ESI") and privileged materials, as described further below, and to better define the scope of their obligations with respect to preserving such information and materials;

WHEREAS, the parties are aware of the importance of cooperation and commit to cooperate in good faith throughout the matter to promote the "just, speedy, and inexpensive determination" of this action, as required by Fed. R. Civ. P. 1. The parties agree to use reasonable, good faith, and proportional efforts to preserve, identify and produce relevant and discoverable information consistent with Fed. R. Civ. P. 26(b)(1). The parties' cooperation includes identifying appropriate limits to eDiscovery, including limits on custodians, identifying relevant and discoverable subject matter, establishing time periods for eDiscovery and other parameters to limit and guide preservation and eDiscovery issues;

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NOW THEREFORE, it is hereby ORDERED:

I.   GENERAL PROVISIONS

1.   Except as specifically set forth herein, this Order does not alter or affect the applicability of the Federal Rules of Civil Procedure or Local Rules for the United States District Court for the Southern District of New York.

2.   The production specifications set forth in this Stipulation and Order apply to Documents and ESI that is ~~to be~~ produced in ~~the first instance~~response to requests issued pursuant to Fed. R. Civ. P. 34 or 45 in the above-captioned litigation. To the extent any producing party reproduces Documents or ESI previously produced by any party or ~~Non-Party~~non-party during ~~a~~the pre-complaint investigation of ~~the subject matter of~~this litigation ~~(including but not limited to the Investigation Materials as defined in the Protective Order, ECF No. 297 at 5),~~by the Plaintiff States, that party may reproduce such Documents or ESI in the manner in which it was previously produced.[1] ~~No party is obligated~~ to ~~reformat a reproduction of any prior production in accordance with~~that party.[2] To the extent a receiving party discovers documents that were previously produced during the pre-complaint investigation by the ~~production specifications in this Stipulation and Order. The production specifications set forth in this Stipulation and Order do~~Plaintiff States are not fully readable or useable (for example, encrypted files, spreadsheet files that have been tiffed, etc.), have been produced in a manner that withholds content present in the native document, or produced without live links, the receiving party may request that more readable versions or links be produced, which shall not ~~apply to databases, data~~

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[1] ~~The parties will meet and confer concerning the applicability of this Stipulation and Order to Documents reproduced in this action that were previously produced in another action or as part of a pre-complaint investigation.~~
[2] The parties will meet and confer concerning the applicability of this Stipulation and Order to Documents reproduced in this action that were previously produced in another action or as part of a pre-complaint investigation.

~~sources, logs, and other structured data except as described in paragraph L below.~~ <u>be unreasonably refused.</u>

3. "Actions" means collectively the actions centralized by the Judicial Panel on Multidistrict Litigation under the caption *In re Google Digital Advertising Antitrust Litig.*, No. 21-MD-3010 (PKC) (S.D.N.Y.), as well as any additional actions subsequently transferred and/or centralized with these Actions, including any related discovery, pretrial, trial, post-trial, or appellate proceedings. The term Action means an individual action within the Actions. For the avoidance of doubt, "Actions" excludes pre-suit investigations by State Plaintiffs.

4. ESI Liaisons.

    a. Designation: Each party agrees to designate one or more ESI Liaisons within ten (10) days after entry of this ESI Protocol. Any party is free to change its designated ESI Liaisons by providing written notice to the other parties.

    b. Duties of ESI Liaisons: Each ESI Liaison will be prepared to participate in the resolution of any e-discovery disputes or ESI issues that may arise (or designate another person as primarily responsible), be knowledgeable about the party's eDiscovery efforts, have reasonable access to personnel most knowledgeable about the ~~Party's~~<u>party's</u> electronic systems and capabilities in order to, as appropriate, explain those systems and answer relevant questions, including the location, nature, accessibility, format, collection, search methodologies, and production of ESI in this matter, and have reasonable access to those who are knowledgeable about the technical aspects of eDiscovery, including electronic document storage, organization, and format issues, and relevant information retrieval technology, including search methodology. The parties will rely on the liaisons, as needed, to confer about ESI and to help resolve disputes without court intervention.

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II.   PRESERVATION

1. Materials To Be Preserved. Each ~~Party~~party will continue its retention practices with regards to all Documents and ESI and will take reasonable and proportionate steps to preserve relevant and discoverable ESI in compliance with duties to preserve material under the Federal Rules of Evidence and the Federal Rules of Civil Procedure. Upon mutual agreement of the parties, a party will modify its retention practices to ensure the preservation of potentially responsive Documents and ESI.

2. To reduce the costs and burdens of preservation and to ensure proper ESI is preserved, the parties agree that:

    a. Parties shall preserve non-duplicative relevant electronically stored information in their possession, custody, or control.

    b. Subject to and without waiving any protection described above, the parties agree that:

        i.   The parties will endeavor to agree upon a date limitation for the preservation of ESI;

        ii. The parties will endeavor to agree upon a list of the types of relevant ESI they believe should be preserved and the custodians for whom they believe relevant ESI should be preserved. The parties shall add or remove custodians as reasonably necessary.

3. ESI That Is Not Reasonably Accessible. The following categories of ESI are not reasonably accessible in this litigation and the parties agree that they need not be preserved, searched, collected, or reviewed. The parties will continue to meet and confer regarding any additional categories of information that are not reasonably accessible.

    a. Back-up systems used for disaster recovery and tapes used for disaster recovery;

    b. Individual user data subject to routine disposition required by privacy regulations;

c. Information from handsets, mobile devices, personal digital assistants, and tablets that is duplicative of information that resides in a reasonably accessible data source;

d. Logs of calls made from cellular phones that duplicate information that resides in a reasonably accessible data source;

e. Voicemail messages;

f. Slack, fragmented, or unallocated data accessible only by forensics;

g. Data stored in random access memory ("RAM"), temporary files, or other ephemeral data that are difficult to preserve without disabling the operating system;

h. Online access data such as temporary or cache files, including internet history, web browser cache and cookie files, wherever located;

i.h. Data in metadata fields that are frequently updated automatically, such as last-opened or last modified dates;

j. Server, system, or network logs;

k.i. Ad log files concerning ads viewed outside the United States, Canada, the United Kingdom, Australia, New Zealand, and Ireland;the European Union; [3]

l. Dynamic fields of databases, dashboards, or log files;

m.j.Systems no longer in use that cannot be accessed as of the date the preservation obligation was triggered; and

n.k.Information created or copied during the routine, good-faith performance of processes for the deployment, maintenance, retirement, and/or disposition of computer

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[3] Nothing in this Order shall be construed to mean that ad log files concerning ads viewed within the United States, Canada, the United Kingdom, Australia, New Zealand, and Ireland are relevant to this dispute. The parties agree to meet and confer regarding a relevant and proportionate set of ad logs in these jurisdictions to be sampled and/or preserved. Google takes the position that EU ad log files are not relevant or necessary, and that it would be unduly burdensome for Google to preserve EU ad log files. Plaintiffs disagree and reserve all rights. Nevertheless, given Google's position, Google is precluded from taking any position whatsoever based on EU ad log files that it does not preserve or produce in this litigation.

equipment by the party that is duplicative of information that resides in a reasonably accessible data source.

4. Nothing in this section allows parties to destroy or otherwise fail to preserve encryption keys, mapping tables, identifiers, or other data sources that are necessary to make relevant ESI and Documents useable for the purposes of this Action. Nothing in this Stipulation and Order prevents any party from asserting, in accordance with the Federal Rules of Civil Procedure, that other categories of Documents or ESI are not reasonably accessible.

5. Preservation Does Not Affect Discoverability or Claims of Privilege. By preserving Documents and ESI for the purpose of this litigation, the Parties are not conceding that such material is discoverable, nor are they waiving any claim of privilege.

III. COLLECTION AND REVIEW

1. The parties agree that in responding to an initial Fed. R. Civ. P. 34 request, they will meet and confer about methods to search ESI in order to identify ESI that is subject to production in discovery and filter out ESI that is not subject to discovery.

2. The parties will meet and confer in good faith regarding search terms or use of technology-assisted review or a similar tool (collectively "TAR") to identify responsive documents. In the event a party elects to use search terms, if a requesting party objects to the sufficiency of the producing party's terms, the requesting Party may propose modifications or a list of additional terms. The parties will meet and confer in good faith regarding any proposed changes. Any disputes over search terms that cannot be resolved between the parties during a meet and confer may be consequently raised with the Court.

3. Nothing in this Order may be construed or interpreted as precluding a producing party from performing a responsiveness review to determine if documents captured by search

terms are in fact relevant to the requesting party's request. Nothing in this Order

precludes a party from using TAR, or some other method to fulfill their document

production obligations, provided that the party discloses to the other party the process

used and complies with the meet and confer obligations outlined in this Order. However,

a producing party that wishes to use TAR in combination with search terms must meet

and confer with the receiving party before using this method to collect and review

documents and prior to negotiation of search terms. Nothing may be construed or

interpreted as precluding a producing party from performing a privilege review of

documents determined to be relevant by any means. Further, nothing in this Order shall

be construed or interpreted as requiring the production of all documents captured by any

search term or TAR if that document is in good faith and reasonably deemed not relevant

to the requesting party's request or privileged.

4. Each party will use its best efforts to filter out common system files and application

    executable files by using a commercially reasonable hash identification process. Hash

    values that may be filtered out during this process are located in the National Software

    Reference Library ("NSRL") NIST hash set list.

5. De-Duplication. Each party is required to produce only a single copy of a responsive

    document. A producing party electing to deduplicate ~~shall~~may deduplicate across

    Custodians and at the family-level only (i.e., if there are identical child documents that

    have different parents, they are not duplicative, and an attachment to a document is not a

    duplicate of the same document maintained as a standalone document). Each party may

    de-duplicate responsive ESI (based on Source Hash, MD5 hash values, or other industry

    standard method) across Custodians. For emails with families, the hash value is generated

    based on the parent/child document grouping. To the extent that deduplication through

hash values is not possible, the parties shall meet and confer to discuss any other proposed method of deduplication. A producing party must make reasonable effort to identify all agreed upon custodians who were in possession of any de-duplicated documents through an appropriate load file field such as All Custodians. Additionally, all BCC recipients whose names would have been included in the BCC metadata field, to the extent such metadata exists, but are excluded because of horizontal/global de-duplication, must be identified in the BCC metadata field specified in Appendix 1. In the event of rolling productions of documents or ESI, the producing party will, as needed, supplement the load files with updated All Custodian information, as well as BCC information to the extent such metadata exists. Duplicate custodian information may be provided by a metadata overlay and will be provided by a producing party on an ongoing basis.

6. Email Threading. ~~Where multiple email messages are part of a single chain or "thread," a party is only required to produce the most inclusive message ("Last In Time Email") and need not produce earlier, less inclusive email messages or "thread members" that are fully contained, including attachments and inline objects (including inline images and hyperlinks) and including identical text, identical subject(s), identical senders and recipients (including in "to," "cc," and "bcc" fields), within the Last In Time Email. Only email messages (including inline objects, text, subject(s), and senders and recipients) and all attachments that are fully contained in and identical to the Last In Time Email will be considered less inclusive email messages that need not be produced~~Production of a most inclusive email thread does not relieve the Producing Party of its obligation to produce responsive prior or lesser-included emails. No document shall be withheld from production solely on the basis that it is included in a produced more-inclusive email.

7. Cooperation. The ~~Parties~~parties agree to work together in good faith to resolve any differences that they may have over the ~~Producing Party's~~producing party's use of search terms, TAR, or a combination of the search terms and TAR, or some other method, or for documents that cannot be searched electronically.

8. Filtering. If a producing party proposes to apply other filters to limit Documents and ESI that is collected for processing and review (e.g., filters that identify system files, non-user generated files, or zero-byte files), the producing party shall advise the requesting party and the requesting and producing parties shall meet and confer regarding such additional proposed filters.

Each ~~Party~~party shall use its institutional knowledge of how its ESI is stored and accessed in the ordinary course of business to identify responsive Documents. This institutional knowledge includes, but is not limited to, a ~~Party's~~party's standard practices regarding the storage of ESI, its file organization structure, its usage of group ownership, group accounts, and shared network locations to manage or organize ESI.

IV.   PRODUCTION FORMAT

1. Subject to paragraph I.2 above, the parties agree to produce documents in the formats described in Appendix 1 to this Order. If particular documents warrant a different format, the parties will cooperate to arrange for the mutually acceptable production of such documents. The parties agree, to the extent practicable, not to materially degrade the searchability of the documents as part of the document production process.

V.   PRIVILEGE LOGS

1. Any ~~Producing Party~~producing party will produce a privilege log within ~~60~~30 days ~~after substantial completion~~ of ~~its~~any production ~~of documents responsive to initial requests and 45 days after any subsequent production. Except as provided otherwise below, for any Document~~from which material was withheld or redacted~~, the Producing Party~~. The producing party will produce privilege logs in MS Excel (.xlsx) format.

2. If any member of a produced Document Family is withheld on grounds of privilege or work-product, the ~~Producing Party~~producing party shall produce a Bates stamped placeholder slipsheet that identifies the Document as withheld as privileged and shall identify the Document in the Privilege Log by the Bates number on the placeholder slipsheet.

3. Privilege logs shall be provided containing the following information, to the extent reasonably available:

   a. A sequential number associated with each entry in the privilege log (Column A: row 1, row 2, row 3, etc.);

   b. Where applicable, BegBates and Parent BegBates;

   c. The Custodian or Custodial or Non-Custodial Data Source from which the Document was collected;

d. The name of each person who sent, authored, or otherwise prepared the Document;

e. The identity of each person designated as an addressee or copyee, including CC and BCC (copyees and blind copyees shall appear in separate fields);

f. The date;

g. A description, pursuant to Federal Rule of Civil Procedure 26(b)(5)(A)(ii), of the contents of the withheld Document that, without revealing information that is itself privileged or protected, is sufficient to enable other Parties to understand the general subject matter of the Document and assess the basis of the claim of privilege or other protection from disclosure;

h. The name of the attorney(s) ~~or~~and legal organization who provided the legal advice at issue, from whom the legal advice at issue is requested, who directed the facilitation of the legal advice at issue, and/or who requested or prepared the Document;

i. The nature of the privilege or protection asserted (i.e., attorney-client privilege, work product doctrine).

4. If a ~~Producing Party~~producing party contends that all Documents of a particular type or category are privileged, they may request permission from and shall meet and confer with the ~~Receiving Party~~receiving party to identify such Documents on a privilege log by category rather than individually. The ~~Receiving Party~~receiving party shall consider any such request in good faith. The ~~Producing Party's~~producing party's categorical privilege log entry must still provide the ~~Requesting Party~~requesting party, and the Court if necessary, with information sufficient to evaluate the ~~Producing Party's~~producing party's privilege claims.

5. A single document containing multiple email messages (i.e., in an email chain) may be logged as a single entry~~.~~, if it is produced in redacted form with all email header information visible.

6. Each entry on a privilege log must indicate each person, group, or entity who was acting in a legal capacity with respect to that particular Document.

7. If the ~~Producing Party~~producing party contends that more than one basis for withholding applies to a single Document, all bases must be asserted in the privilege log.

8. Exclusions. To the extent any of the following Documents are privileged or otherwise protected from disclosure by Federal Rule of Civil Procedure 26(b)(3)-(4), they may be excluded from privilege logs:

    a. Documents solely in the possession of outside counsel and their agents who represent a ~~Party~~party in any of these Actions;

    b. Documents sent solely among a ~~Party's~~party's outside counsel and their agents;

    c. Documents that are non-discoverable or excluded from privilege log obligations under the Expert Stipulation;

    d. Documents sent solely between counsel for the United States and counsel for any state;

    e. Documents sent solely between counsel for any State and counsel for any other State;

    f. Documents sent solely between outside counsel (and their agents) who represent a ~~Party~~party in any of these Actions and inside counsel for a ~~Party~~party;

g.   Documents sent solely between or among ~~(i) Defendants'~~ counsel~~, or (ii) Plaintiffs' counsel.~~[4] – for any Plaintiff (including such counsel's agent(s));

h.   Documents sent solely among outside counsel and their agents who represent a ~~Party~~party in any of these Actions and the ~~Parties~~parties they represent in these Actions, regarding the prosecution or defense of these Actions; and

i.   Documents the ~~Producing Party~~producing party may properly exclude from a privilege log pursuant to any subsequent order in the Actions.

9.   If a Document contains both privileged and non-privileged communications, the non-privileged communications must be produced, either by separately producing a copy of the non-privileged communications embedded in the privileged communication, or by producing a copy of the entire communication string with the privileged portion(s) redacted. The redactions shall be narrowly applied so the ~~Receiving Party~~receiving party has the ability to discern to the maximum extent practicable the privilege assertion within the Document and to view all non-privileged communications and material.

10. Redactions based on relevance or responsiveness or confidentiality are disallowed. For the avoidance of doubt, (a) to the extent that any Document contains or reflects Source Code, as defined by the Confidentiality Order entered on May 11, 2022, ECF No. 297, such Document will be governed by Appendix C of that Confidentiality Order, and (b) nothing in this Stipulation and Order prevents any party from redacting personal data and personally identifying numbers or sensitive information from produced documents, consistent with the requirements under Federal Rule of Civil Procedure 5.2 and Local

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[4] ~~Sub-paragraph V.8(g) shall only shall only apply to communications occurring after December 16, 2020 (though no party waives any attorney-client or other privilege it may have over pre-December 16, 2020 communications). For purposes of this Order, "Plaintiffs' counsel" includes counsel for any Plaintiff in an Action and "Defendants' counsel" includes counsel for any Defendant in an Action.~~

Rules. The Parties do not waive any objections to the production, discoverability, admissibility, or confidentiality of Documents.

11. If a Document is produced with redactions, the redactions must not obscure any header information (e.g., from, to, subject, sent date) of any emails or other communications reflected in the Document, except to the extent that information is privileged.

12. A ~~Party~~party who, pursuant to a request under Federal Rule of Civil Procedure 34 or a non-party, pursuant to a request under Federal Rule of Civil Procedure 45, re-produces Documents from other matters~~,~~ may produce privilege logs relating to that production in the manner they were produced in such other matters, so long as the privilege logs comply with Federal Rule of Civil Procedure 26(b)(5)(A). The party shall, however, reproduce these logs in Excel format upon request if reasonably possible to do so.

VI.   MISCELLANEOUS PROVISIONS

1. Motions. The parties shall raise discovery disputes in accordance with the Individual Practices of Judge Kevin P. Castel. Discovery Disputes shall be brought on by letter and the parties shall comply with Local Civil Rule 37.2 unless otherwise ordered. A Discovery Dispute Letter to the Court shall contain the certification required under Rule 37(a)(1), Fed. R. Civ. P., and the full text of any discovery request and response or objection thereto, together with any case law support and any affidavits required to adjudicate the issue. The party from whom discovery is sought shall respond within four business days and shall include any case law support and any affidavits required to adjudicate the issue.

2. Costs of Document Production. Unless this Court orders otherwise for good cause shown, each party and non-party shall bear the costs of collecting, processing, reviewing, and producing its own documents.

3. Integration/Appendices. The following documents are incorporated herein by reference:

   a.   "Appendix 1" is a document describing the production format and fields to be included in the documents produced by each party.

SO ORDERED this _____ day of _____, 2022

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HON. P. KEVIN CASTEL
U.S. District Judge

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APPENDIX 1: PRODUCTION FORMAT

A.   **Production Components**. Except as otherwise provided below, ESI shall be produced in accordance with the following specifications:

1. An ASCII delimited data file (.DAT) with ASCII 020 for the comma character and ASCII 254 for the quote character and ASCII174 for new line character, with all values in a multi-value field separated by a semi-colon ASCII 059 (with the use of commas and quotes as delimiters not acceptable using standard delimiters) and encoded in UTF-8;

2. An image load file (.OPT) that can be loaded into commercially acceptable production software (e.g. Concordance). The Image Load File shall contain the following comma-delimited fields: BEGBATES, VOLUME, IMAGE FILE PATH, DOCUMENT BREAK, FOLDER BREAK, BOX BREAK, PAGE COUNT;

3. TIFF images;

4. Document level .TXT files for all documents containing extracted full text or OCR text;

5. Parent-child relationships will be maintained in production and child files should be produced consecutively following parent files and shall be sequentially Bates stamped. The ~~Producing Party~~producing party shall ensure the metadata fields for BegAttach and EndAttach referenced in Part D of this Appendix A are accurately populated;

6. Document families must be produced, even if only the parent email or an attachment to an email is responsive, except (1) common system files and application executable files pursuant to paragraph III.4 above, and (2) documents that are withheld on the basis of attorney-client privilege or work product protection. For the avoidance of doubt, documents that are linked are not part of the same family for purposes of this Order. Linked documents are governed by Appendix J below.

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If a particular document or category of documents warrants a different production format, for example if it is impractical to produce an entire document family for particular documents, the parties will cooperate in good faith to arrange for a mutually acceptable production format.

B.   **Production Media and Access Controls**. Documents shall be produced through electronic means, such as secure file sharing methods (e.g. FTP) or on CD, DVD, flash drive or external hard drive ("Production Media"). Each piece of Production Media shall identify a production number corresponding to the production volume (e.g. "VOL001"). Each piece of Production Media shall also identify: (a) the producing party's name; (2) the production date; (3) the Bates Number range of the materials contained on the Production Media.

Nothing in this Order will preclude or impair any and all protections provided the parties by any Protective Order(s) agreed and entered into by the parties. Any data produced by the producing party must be protected in transit, in use, and at rest by all in receipt of such data. Parties will use best efforts to avoid the unnecessary copying or transmittal of produced documents. Any copies made of produced data must be kept on media or hardware employing whole-disk or folder level encryption or otherwise secured on information systems and networks in a manner consistent with the best practices for data protection. If questions arise, Parties will meet and confer to ensure security concerns are addressed prior to the exchange of any documents.

C.   **Data Load Files/Image Load Files**. All production items will be provided with a delimited data file or "load file," which will include both an image cross-reference load file (such as an Opticon file) and a metadata (.dat) file with the metadata fields identified below on the document level to the extent available. Each TIFF in a production must be referenced in the corresponding image load file. The total number of documents referenced in a production's data load file should match the total number of designated document breaks in the image load file(s)

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in the production. The total number of pages referenced in a production's image load file should match the total number of TIFF files in the production. All images must be assigned a unique Bates number that is sequential within a given document and across the production sets. The Bates numbers in the image load file must match the corresponding documents' beginning Bates numbers in the data load file. The total number of documents in a production should match the total number of records in the data load file. Load files shall not vary in format or structure within a production, or from one production to another.

D. **Metadata Fields**. With the exception of hard copy paper documents, which are separately addressed in paragraph M below, and except as provided in I.2, each of the metadata and coding fields set forth below that can be extracted shall be produced for each document produced in the first instance in this litigation, to the extent reasonably practicable. The parties are not obligated to populate manually any of the fields below if such fields cannot be extracted from a document, with the exception of the following: (a) BEGBATES, (b) ENDBATES, (c) BEGATTACH, (d) ENDATTACH, (e) CUSTODIAN, (f) ALLCUSTODIANS, (g) CONFIDENTIALITY, (h) REDACTIONS, (i) NATIVEFILEPATH, and (j) TEXTFILEPATH, which should be populated by the party or the party's vendor. The parties will make reasonable efforts to ensure that metadata fields automatically extracted from the documents correspond directly to the information that exists in the original documents.

Field Name[5]	Field Description
BEGBATES	Beginning Bates number as stamped on the production image
ENDBATES	Ending Bates number as stamped on the production image
BEGATTACH	First production Bates number of the first document in a family

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[5] Field names can vary from system to system and even between different versions of systems. Thus, Parties are to be guided by these Field Names and Field Descriptions when identifying the metadata fields to be produced for a given document pursuant to this ESI Protocol Order.

ENDATTACH	Last production Bates number of the last document in a family
CUSTODIAN	Individual from whom the document originated
ALLCUSTODIAN(S)	Individual(s) whose documents de-duplicated out
CONFIDENTIALITY	Confidentiality designation assigned to document
MD5 HASH VALUE	MD5 hash value of document
SOURCE HASH VALUE	Google Drive Source hash value

AUTHOR	Any value populated in the Author field of the document and/or Google Drive properties (Edoc or attachment only)
DATECREATED	Date the document was created (format: MM/DD/YYYY) (Edoc or attachment only)
DATEMODIFIED	Date when document was last modified according to filesystem information (format: MM/DD/YYYY) (Edoc or attachment only)
FROM	The name and email address of the sender of the email
TO	All recipients that were included on the "To" line of the email
CC	All recipients that were included on the "CC" line of the email
BCC	All recipients that were included on the "BCC" line of the email
ATTACHMENT COUNT	Number of Attached Documents
ATTACHMENT NAME	File name of the document attachment or embedded document; associate with the parent/email which lists any and all filenames of the children/attachments delimited by a semicolon. The field would be populated for parent documents (not for the children)
ATTACHMENTID	The IDs of the documents that are attached to the produced document
COMPANIES	Globally populated field containing the name of producing party (not the law firm or vendor name). Not pulled from metadata.
DATE CREATED	Date the electronic file was created. Format: MM/DD/YYYY.

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TIME CREATED	Time the electronic file was created (format: HH:MM:SS)

DATERECEIVED	Date email was received (format: MM/DD/YYYY)
DATESENT	Date email was sent (format: MM/DD/YYYY)
DATESTART	Start date and time of calendar appointments, voice messages, chats, text message conversations. Format: MM/DD/YYYY HH:MM:SS (use 24 hour times, e.g., 13:32:00 for 1:32 pm); time zone indicators cannot be included.
DATEEND	End date and time of calendar appointments, voice messages, chats, text message conversations. Format: MM/DD/YYYY HH:MM:SS (use 24 hour times, e.g., 13:32:00 for 1:32 pm); time zone indicators cannot be included.
DRIVE COLLABORATORS	Users with access to edit a Google Drive document. See https://support.google.com/vault/answer/6099459#drivexml&zippy=%2Cfile-parameters-in-the-metadata-file.
DOC ID	Google Drive unique identifier. See https://support.google.com/vault/answer/6099459#drivexml&zippy=%2Cfile-parameters-in-the-metadata-file.
DRIVE VIEWERS	Users with access to view a Google Drive Document. See https://support.google.com/vault/answer/6099459#drivexml&zippy=%2Cfile-parameters-in-the-metadata-file.
DOCUMENT TYPE	The file type for Google files. See https://support.google.com/vault/answer/6099459#drivexml&zippy=%2Cfile-parameters-in-the-metadata-file.
DRIVE OTHERS	The accounts from a Google Drive query that have indirect access to the file. See https://support.google.com/vault/answer/6099459#drivexml&zippy=%2Cfile-parameters-in-the-metadata-file.
DRIVE SITES TITLE	Metadata included with Google Drive exports for sites, including the name of the page. See https://support.google.com/vault/answer/6099459#drivexml&zippy=%2Cfile-parameters-in-the-metadata-file.

DRIVE PUBLISHED URL	Metadata included with Google Drive exports for sites, including the web address of the published page. See https://support.google.com/vault/answer/6099459#drivexml&zippy=%2Cfile-parameters-in-the-metadata-file.
DRIVE DOC PARENT ID	Metadata included with Google Drive exports for sites, including a unique identifier for the site. See https://support.google.com/vault/answer/6099459#drivexml&zippy=%2Cfile-parameters-in-the-metadata-file.
DRIVE SHARED DRIVE ID	The Google Drive identifier of the shared drive that contains the file. See https://support.google.com/vault/answer/6099459#drivexml&zippy=%2Cfile-parameters-in-the-metadata-file.
DRIVE CLIENT SIDE ENCRYPTED	In Google Drive, indicates the file was encrypted with Google Workspace Client-side encryption. See https://support.google.com/vault/answer/6099459#drivexml&zippy=%2Cfile-parameters-in-the-metadata-file.
DRIVE REVIEWS	Google Drive metadata regarding file approvals. See https://support.google.com/vault/answer/6099459#drivexml&zippy=%2Cfile-parameters-in-the-metadata-file.
DRIVE USER QUERY	The Google Drive query submitted by the Vault user that retrieved the files included in the export. See https://support.google.com/vault/answer/6099459#drivexml&zippy=%2Cfile-parameters-in-the-metadata-file.
DOC LINK	Metadata tying linked and linking documents, per Section J, below.

FILESIZE	The original file size of the produced document
ORIGINATING PATH	File path of the file as it resided in its original environment. For email, the full folder path of email within a mail store when collected, including file name; or full folder path of instant message or text message when collected including file name; or Hard Copy folder/binder title/label. Prepend with Custodian Name (sample: Smith, James-Inbox\Active). For other documents, the full absolute original path to the

	native, including original file name and root directory as they existed in their original environment, such that all information needed to locate the file is in the path. Prepend with recognizable Custodian Name; e.g. Smith, James- C\MyDocuments\Sales Info\ACME\2017-Monthly- Sales.xlsx
REDACTIONS	Indicate Yes if a document is redacted. If no leave blank.
NATIVE LINK	Native File Link (Native Files only)
EMAIL THREAD ID	Unique identification number that permits threading of email conversations. For instance, MS Outlook identification number ("PR CONVERSATION INDEX") is 22 bytes in length, followed by zero or more child blocks each 5 bytes in length, that facilitates use of email threading. (Microsoft application documents only)
TEXTFILEPATH	Path to extracted text/OCR file for document
EMAILSUBJECT	Subject Line of email
TIMESENT	Time email was sent
TIMEZONEUSED	Time zone used to standardize date/time during document processing
RECEIVETIME	Time email was received
FILENAME	File Name of the edoc or email
TITLE	Any value populated in Title field of the document properties
SUBJECT	Any value populated in the Subject field of the document properties
DOCEXT	File extension of the document
WITHHELD PLACHOLDER	To the extent a document is fully withheld (on the basis of privilege or otherwise), this field must be populated with a "Y". If not applicable leave blank.
TECHNICAL ISSUE PLACEHOLDER	To the extent a file is withheld on the basis of a technical issue, this field must be populated with a "Y". If not applicable leave blank.
VOLUMENAME	Unique production volume identifier applied (e.g., ABC001-001).
PAGECOUNT	For Documents produced in TIFF form, number of pages in the Document. For

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	Documents produced in native, page count will be 1 (for placeholder)

E.   TIFFs. Documents that exist only in hard copy format shall be scanned and produced as TIFFs. Documents that exist as ESI shall be converted and produced as TIFFs, except as provided below. The imaged data shall retain all attributes of the native or hard-copy file to the extent reasonably practicable. To the extent reasonably practicable, produced TIFF image will show all text and images that are visible in the form in which the electronic document was last saved, with the exception of redacted portions. Hidden content, tracked changes or edits, comments, notes, and other similar information, shall to the extent reasonably practicable, be produced in native or Microsoft-equivalent format, or be imaged so that such content is viewable on the image file. Where hidden content, tracked changes or edits, comments, notes, or other similar information is not readable in its produced format, a party that received the document may make reasonable requests that a more readable version, such as a native or Microsoft-equivalent version, be produced when helpful to interpret the contents of the relevant document. To the extent a response to discovery requires production of Document(s) accessible only through proprietary or enterprise software, the Parties shall meet and confer to finalize the appropriate production format. Unless excepted below, single page, black and white, Group IV TIFFs should be provided, at least 300 dots per inch (dpi) for all documents, with corresponding multi-page text and necessary load files. Each TIFF image shall be named according to a unique corresponding Bates number associated with the document. Each image shall be branded according to the Bates number and the agreed upon confidentiality designation. Original document orientation should be maintained (i.e., portrait to portrait and landscape to landscape). Documents that are difficult to render in TIFF because of technical issues, or any other documents that are impracticable to render in TIFF format, may be produced in their native format with a placeholder TIFF image stating "Document Produced Natively." A producing party retains the option to produce ESI in

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alternative formats if so agreed by the requesting party, which may include native format, or a

combination of native and TIFF formats. For future productions of documents responsive to

properly propounded requests issued pursuant to Fed. R. Civ. P. 34 and 45, the producing party

will make reasonable efforts to identify documents with readability issues in advance of

production and, where issues are detected, to produce the document(s) in a more readable format

(such as in native or Microsoft-equivalent form). The foregoing provisions of Appendix E do not

apply to Investigation Materials (as defined in the governing Confidentiality Order, ECF No. 297)

or other cloned discovery. To the extent that Investigation Materials or other cloned discovery

contain documents responsive to properly propounded requests issued pursuant to Fed. R. Civ. P.

34 and 45 where the TIFF image is unreadable or has materially degraded the quality of the

original, the producing party shall, when requested and where possible and proportionate, provide

a higher quality TIFF image, or the native, Microsoft-equivalent, or original file.

F.   **Color**. A party that received a production may make reasonable requests that color images

be produced where color is helpful to interpret the contents of the relevant document. The

production of documents and/or ESI in color shall be made in single-page JPEG format (300 DPI).

All requirements for productions stated in this ESI Protocol regarding productions in TIFF format

apply to any productions of documents and/or ESI in color made in such an alternative format.

Reasonable requests that a document be produced in color for the reasons set forth in this

Paragraph will not be unreasonably denied by the producing party. If a producing party wishes to

object, it may do so by responding in writing and setting forth its objection(s) to the production of

the requested document in color.

G.   **Text Files.** A single multi-page text file shall be provided for each document, and the

filename should match its respective TIFF filename. When possible, the text of native files should

be extracted directly from the native file. Text files will not contain the redacted portions of the

documents. A commercially acceptable technology for optical character recognition "OCR" shall be used for all scanned, hard copy documents and for documents with redactions. All Documents shall be produced with a link in the TextLink metadata field.

H.   Native Files. Spreadsheets (e.g. MS Excel) will be produced in native format unless redacted. In the event spreadsheets require redactions, they shall be produced in Microsoft-equivalent format (.xls, .xlsx). All presentations (e.g. Powerpoint) will be produced in native format unless redacted. If a ~~Requesting Party~~requesting party reasonably determines that a redacted file is not reasonably usable, the ~~Requesting Party~~requesting party and the ~~Producing Party~~producing party will discuss an alternative method to produce the file in a reasonably usable format. To the extent that they are produced in this action, audio, video, and multi-media files will be produced in native format. Native files shall be produced with a link in the NATIVEFILEPATH field, along with extracted text (where extracted text is available) and applicable metadata fields set forth in paragraph D above. A Bates numbered TIFF placeholder indicating that the document was provided in native format must accompany every native file.

I.   Request for Other Native Files. Other than as specifically set forth above, a producing party need not produce documents in native format. If a party would like a particular document produced in native format and this ESI protocol does not require the production of that document in its native format, the party making such a request shall explain the reason for its request that the document be produced in its native format. The requesting party will provide a specific Bates range for documents it wishes to be produced in native format. The producing party need only produce such a document in native format if reasonably practicable. Any native files that are produced should be produced with a link in the Native Link field, along with all extracted text and applicable metadata fields set forth in Appendix 1.

J. **Linked Files and Collaborative Work Environments.** For future productions of documents responsive to properly propounded requests issued pursuant to Fed. R. Civ. P. 34 or 45, the ~~receiving party may make reasonable and proportionate requests that the producing party conduct a reasonable search for relevant documents identified via hyperlinks in produced emails by identifying the hyperlink URL or hyperlinked language in the produced email that the receiving party believes is relevant. For each link identified by the receiving party~~producing party shall conduct an automated search across all emails to be produced, where the producing party has access to a tool capable of performing such an automated search, to identify any emails that contain links to another document. For each link identified, the producing party shall conduct a reasonable search for the document corresponding with the link. The producing party shall process and produce relevant documents corresponding with the email links, where reasonably practicable and proportionate, with metadata ~~where available. For documents produced pursuant to this Appendix J, the producing party is not required to (a) conduct any further search of documents corresponding with the email links, or (b) search for or produce linked documents outside the scope of collection sets of documents for the agreed-upon custodians.~~or other information sufficient to identify the linking document. The foregoing provisions of Appendix J do not apply to Investigation Materials or any other cloned discovery, unless responsive to a Rule 34 document request in this litigation. A receiving party may make reasonable and proportionate requests for production of linked documents missing from Investigation Materials or any other discovery.

K. **Confidentiality Designation.** Responsive documents in TIFF format will be stamped with the appropriate confidentiality designations in accordance with the Protective Order entered in this matter. Each responsive document produced in native format will have its confidentiality designation identified in the filename of the native file and indicated on its corresponding TIFF placeholder.

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L. **Databases, Data Sources, Logs, and Other Structured Data.** The parties shall meet and confer regarding the production format and scope of data contained in databases, data sources, and logs in order to ensure that any information produced is reasonably usable by the receiving party and that its production does not impose an undue burden on the producing party. To avoid doubt, information will be considered reasonably usable when produced in ~~Parquet or other commonly utilized electronic formats, including~~ CSV format, ~~other character~~tab-delimited text format, Microsoft Excel format, or Microsoft Access format. To the extent a party is constrained from producing responsive ESI because of a third-party license or because software necessary to view the ESI is hardware-dependent, the parties shall meet and confer in an attempt to reach an agreement on whether alternative methods exist to enable the requesting party to view the ESI.

M. **Paper Documents.** A producing party may make paper documents available for inspection and copying in accordance with Federal Rules of Civil Procedure 34 and 45 or, additionally or alternatively, scan and OCR paper documents. The following information shall be produced in the load file accompanying production of paper documents produced by scan and OCR to the extent reasonably practicable: (a) Beg Bates, (b) End Bates, (e) Custodian, (f) Confidentiality, (g) Redacted; (h) BegAttach (if applicable), (i) EndAttach (if applicable), (l) TextLink, (m) HashValue. Paper documents should be logically unitized for production to the extent reasonably practicable. Generally, when scanning paper documents for production, distinct documents shall not be merged into a single record and single documents shall not be split into multiple records. The parties will make reasonable efforts to unitize documents correctly. Where a document or a document group — such as folder, clipped bundle, or binder has an identification spine or other label, the information on the label shall be scanned and produced as the first page of the document or grouping to the extent reasonably practicable.

N.   **Date and Time.** No party shall modify the date or time as contained in any original ESI. This provision does not prevent parties from deleting inaccurate date or time information that arises as an incident of collection or processing.

O.   **Time Zone.** To the extent reasonably practicable, ESI items shall be processed using a consistent time zone and the time zone shall be disclosed to the requesting party.

P.   **Auto Date/Time Stamps.** To the extent reasonably practicable, ESI items shall be processed so as to preserve the data/time shown in the document as it was last saved, not the date of collection or processing.

Q.   **Hidden Text.** ESI items shall be processed, to the extent practicable, in a manner that preserves hidden columns or rows, hidden text and fields, worksheets, speaker notes, tracked changes, and comments.

R.   **Bates Numbers.** Bates number must always: (1) contain no special characters or spaces;[6] (2) for TIFF images, be sequential within a given Document; (3) identify the ~~Producing Party~~producing party; (4) maintain a constant length of nine numeric digits (including 0-padding) across the entire production; and (5) be unique across the entire production. Bates number must also maintain consistent numbering across a family of Documents. Bates numbers shall not be applied in a way that causes the text of the original Document to be obscured, deleted, or removed. If the Document contains a Bates number from a prior lawsuit, investigation, or production, the ~~Producing Party~~producing party shall avoid obscuring the previous Bates number or alternatively, shall provide a metadata overlay allowing the ~~Requesting Party~~requesting party to identify the corresponding Bates number.

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[6] For the avoidance of doubt, hyphens, dashes, and underscores are permitted and are not "special characters" within the meaning of this provision.

S.   **Compression Files.** Compression or container file types (e.g., .CAB, .GZ, .RAR. .ZIP),

shall, where possible, be decompressed to ensure that a compressed file within a compression or

container file are decompressed into the lowest possible compression resulting in individual

folders and/or files. Original compression files and container files need not be produced, provided

that all Documents within the compression or container file are produced in accordance with the

specifications of this Order.

T.   **Password Protected/Encrypted Files.** ~~To the extent Documents are password-protected~~

~~or encrypted, the requesting party may make reasonable requests for the producing party to~~

~~process such Documents for review.~~ The producing party shall ~~use~~make reasonable efforts to

~~produce such documents where possible~~ensure that all encrypted or password-protected

Documents are successfully processed for review and ~~proportionate to do so. The~~production

under the requirements of this Order, and that responsive decrypted Documents are produced. To

the extent such Documents are not successfully processed, the producing party agrees to notify the

requesting party and the parties shall meet and confer ~~to resolve any disputes arising under this~~

~~Appendix T. ~~.